

Scientific Note

NEW HOST RECORDS FOR THE BLACK POLYCAON

The black polycaon, *Polycaon stoutii* (LeConte) (Coleoptera: Bostrichidae) is a wood-boring beetle which occurs in British Columbia, Washington, Oregon, California, and Arizona (Ebeling, W. 1975. Urban entomology. Univ. of Calif. Press, Berkeley, California; Fisher, W. S. 1950. USDA Misc. Publ., 698). It has been reported to attack alder, curing eucalyptus logs, and three-ply panels which are used for making desks and other furniture (Doane, R. W. et al. 1936. Forest insects. McGraw-Hill Book Company, New York). Other host records include maple, oak, fruit trees, California laurel, madrone, manzanita, sycamore, and other native California trees (Essig, E. O. 1958. Insects and mites of western north America. The Macmillan Company, New York). The black polycaon has also been reported from white ash, *Fraxinus americana* L. an eastern hardwood species (Seybold, S. J. & D. L. Wood. 1993. Pan-Pacific Entomol., 69:33–35).

This paper reports two new host records for the black polycaon and describes a case history of an infestation in a hardwood warehouse in southern California.

On 30 October 1998, portions of infested hardwoods from a hardwood lumber warehouse in Santa Ana, Orange County, California, were brought to my office for identification purposes. Examination of the wood revealed the presence of adult beetle emergence holes in a few pieces of lumber. Further cutting of the wood revealed tunnels which were loosely packed with coarse frass (Fig. 1). Two live larvae, one full grown, were retrieved when portions of infested wood were dissected. The larvae and the type of damage present in these lumber are consistent with the activity of the black polycaon. An adult *P. stoutii* subsequently emerged from infested wood which was held at room temperature in an insect rearing cage confirming that this infestation was indeed that of the black polycaon.

On 2 November 1998, I visited the lumber yard in question and inspected several piles of hardwood lumber which were of concern to the owners. Piles of bostrichid frass were found in several areas of the stacks of lumber. The infested woods were American cherry (fruitwood), *Prunus serotina* Ehrhart and North American black walnut, *Juglans nigra* L. This is the first record of *P. stoutii* from these two eastern hardwood species. The principal source of both of these hardwoods is the eastern United States (Paxton, F. 1987. Beautiful hardwoods. Frank Paxton Company, Kansas City, Missouri).

According to the lumber company's records, the American cherry and North American black walnut in question originated from Bellplaine, Iowa. The infested lumber had been in storage in their warehouse in Santa Ana since September 1997. The records also show that this lumber was steamed and kiln-dried in Iowa prior to shipment to California. Upon completion of these processes, the moisture content of the woods was reported to be in the range of 6 to 8%. These procedures would have certainly killed any wood-boring insects which may have been present in the raw lumber. The fact that the black polycaon is not known to occur in Iowa and the lumber was kiln-dried prior to shipment ruled out the possibility that this infestation originated at the point of shipment. The owners of this lumber ware-



Figure 1. Black polycaon damage to hardwood taken from a lumber yard in Santa Ana, California.

house were keenly interested in the origins of this infestation because they were hoping that the shipper would be liable for the cost of eradicating the infestation. The owners of this lumber warehouse were concerned about the 22 species of hardwoods held in storage with an inventory value of millions of dollars. The source of this black polycaon infestation was from indigenous populations of this beetle. This bostrichid can complete a generation in one year (Ebeling 1975; Furniss, R. L. & V. M. Carolin, 1977. Western forest insects. USDA Misc. Publ., 1339). The infested wood in this incident had been in storage in Santa Ana for more than one year. This is certainly enough time to allow for adult emergence and other external manifestations of the infestation. It should be noted here that moisture content readings taken from both species of hardwoods on 2 November 1998 were 10.1%.

The black polycaon flies at night (Ebeling 1975), and it is attracted to bright lights particularly mercury vapor lamps. Over the years, I have encountered two cases where adult beetles were drawn to structures by external lights. In August 1990, on Fourth Street in Rancho Cucamonga, San Bernardino County, California, black polycaon were attracted by lights to a large defense contractor building, which was surrounded by wine grape vineyards, in such numbers that they created a nuisance. In August 1997, *P. stoutii* was found on and around a large glass-type structure located on Irvine Center Drive, Irvine, Orange County, California. This building is illuminated at night by four large banks of light which are located in concrete pits in the ground at the four corners of the structure. Bright beams of light are projected upwards on and towards the top of the structure. The property management company stated that the illuminated structure served as a good source of publicity because it attracts the attention of nighttime commuters traveling on the nearby freeway. These lights also attracted large number of other insects to the structure creating a nuisance.

It is recommended that hardwood lumber yards and lumber warehouses do not

use exterior mercury vapor lamps. These lamps will attract wood-boring beetles to the area creating a situation which is conducive to infestations of stored lumber.

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